Evaluate

\[
\left( \frac{1}{8} \right)^{-\frac{2}{3}}
\]

GCSE Higher Revision 1A
If \( \frac{28}{\sqrt{2}} \) is expressed in the form \( a\sqrt{2} \) what would be the value of \( a \)?
If a bag of potatoes weighs 2.5 kg correct to 2 s.f. What would be the upper bound for the weight of 5 bags of potatoes?
If \((3 - 2\sqrt{5})^2\) is expressed in the form \(a + b\sqrt{5}\), what would be the value of \(a\)?
If \((3 + 2\sqrt{5})^2\) is expressed in the form \(a + b\sqrt{5}\) what would be the value of \(b\)?
p = \sqrt{8} \text{ and } q = \sqrt{2}

What is the value of 4pq?
Use ‘completing the square, to find the minimum value of

\[ x^2 - 8x + 21 \]
Given that $x > 0$ solve

$$4x^2 - 25 = 0$$
\[
\frac{3x}{x-5} + \frac{x + 2}{x - 2}
\]
is simplified to the form
\[
ax^2 - bx + c
\]
\[
x^2 - 7x + 10
\]
What is the value of b?
\[ \frac{3x + 2}{x - 5} - \frac{2x}{x - 2} \]
is simplified to the form
\[ ax^2 + bx + c \]
\[ x^2 - 7x + 10 \]
What is the value of b?
y is inversely proportional to x.
When \( y = 10 \), \( x = 4 \).
What is the value of \( x \) when \( y = 0.5 \)?
The line \( y = x + 2 \) intersects curve \( y = x^2 - 8x + 16 \) at 2 distinct points A and B (B has the larger of the two y-coordinate values).

What is the value of the x-coordinate at B?
What is the gradient of a line perpendicular to the line $6y + 3x = -2$?
If \( \sin x = c \) has one solution at \( x = 55^\circ \) what would be the value of the other solution if \( 0^\circ < x < 360^\circ \)
Given that \( \sin 30^\circ = \frac{1}{2} \) calculate the area of the triangle.
The area of the sector is expressed in the form $a\pi \text{ cm}^2$.

Calculate the value of $a$.
A stratified sample of size 40 is to be taken from the following year groups. How many students would be chosen from year 9?

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of students</th>
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<tbody>
<tr>
<td>7</td>
<td>156</td>
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<tr>
<td>8</td>
<td>204</td>
</tr>
<tr>
<td>9</td>
<td>140</td>
</tr>
</tbody>
</table>
The two triangles are mathematically similar. Calculate the length of $x$. 

[Diagram of two similar triangles with corresponding sides labeled: 8 cm, 2 cm, and 10 cm.}
A bag contains 5 red and 3 blue balls. A ball is selected at random without replacement, and a second ball is then selected. The probability of picking at two balls of the same colour is \( \frac{x}{28} \).

What is the value of \( x \)?
The graph of $f(x)$ is shown below. What would be the $x$-coordinate of point A for the graph of $y = f(x - 3)$?